360 480 600 697 20 787 50 80 agatctcaccaagctgaggtcttgggagagagatactggctgagccctattacttaatttaaaataccttaggggaggccacccaagtggatgcggggctcctgtgaatcctttgcttg actccagcgggttacctttgcctctgatacataaagggtggggatgggagcgctctcctctccttcccttgcctgtgggaacttctgggaaaggaggtgcagggctccaggaag ccagtgcccagggagtgctatgctgagtccaggaagcctggccacggcaggggtggacagatggtggcagaggaaccacggtgtccctcctccagatttagctaaaggaaacgtggagca tcccattggccatcctccccactctccaattcggctccagaggcccctccagactataggcagctgccctttaagcgtcgctactcctccccaagagcggtggcaccgagggagttgg GGG CTG CCA GGG GTT CCG TGG GAG GCG GCC CTA GCC GGG GCC CTG CTG GCG CTG GCG GTG CTG GCC CCG AGA CTC CAG ACC ATG ACC AAC GTG TTC GTG ACT TGG ACT GCC AAC ACC AGT 66A GAC ACC GAC CCC AAT TCG ۵

110 140 170 1237 200 1327 230 260 1507 290 1597 320 1057 1417 1687 1777 967 GAA E ACC ( 999 ಬ್ಬಿ ಇ ~ ۵ 3 ည 2 ے 5 ~ GCA CCT CTG CCT 55 999 ງນ A6C ۵ 9 ည္သ ၁ဗ္ဗာ **GT**G ACC ~ ⋖ z Z. • ⋖

# FIG. 1-2

lagggatggggtgggtgggtgggtgggtggtggtgcctggcgtttttgtgtgtaactaaatatgcgttccagggtctctgatctctgtcattccctcagtgcacctgttgctcctttcac 2834 cccagggtctattatctccacttttttcccag16 GCT TCT TGG GGA GTT TCT tag gcctgaaggacaagaagcaacaactctgttgatcagaacctgtggaaaacctctgg 2945 agggtcgggaagcatgcgatgtgtccgtgggtcaactttttgagtgtggagtttattaagagaaggtgggatggctttgcttggagaaaagggaacgaggagtagcgaaccaaaatgg 1994 lgaactectggetectgggeteaagegateeteceaecteageetectgagtatetgggaetacaggegageeceaeceaateceagetatttttaaaatttettgtagagatggggtett 2354 gctatgttgcccaggcttgtcttgaacttctggcctcaagtgatccttctgcctcagccttccaaagcattaggattacaggccggagccagggcgccgggtcggctctagttttggttt 2474 A S W G V Acceptor

cctctgttcagaatgagtcccatgggattccccggctgtgacactctaccctccagaacctgacgactgggccatgtgacccaaggagggatccttaccaagtgggttttcaccatcctc 3065 gcttgcctgtgcagtcagtgagtgcttagggcaaagaggctccctggttccattccttctgccacccaaaccctgatgagaccttagtgttctccaggctcgtggcccaggctgaga 3305 cctcggccccctttccctccgtttgttttctttcataatccacttactcccttcccttctactctgctggcttttgacagaggcgtaaattaggcctaatcctcactcttttcttccta atgttcatcaaagaaaaa

## FIG. 2-

9861 987 1128 1041 1131 1131 1131 1221 1221 1331 1401 1401 1401 1333 1338 1671 1671 681 38 771 68 gatctgtaatcccagcactggggggggttgaggcagaaggatctggaggtccagaccaatctgggcaacatagaaagactatctcaaacaataagataccttagggagagcatccaagc AG<u>igtagggacacgagcggggaccggagtctctgggtgggga</u> R\_\_Donor\_1 ygacgctgttcctttaaaagcagccactcctcccggcaactagggtgtacatgggggtgagatggaggaagctgacagacttaccccagcaattagggaagatggcccaggctggaag 2TG S CTC L CCG P CGC R R GCC A A TTC 22 ည္ဟင္ CTG CAC S 929 × igtegeteceaagecetactgteceettecetaagecageggtetggggaggaggaggagggaacetteceaeceaggegecacaegag ATG GCT CCG TGG CCT CCA TGG **GAA** 26 R ۵ ليا \_ > ш GGA 9 V AGA SCA CAG 85 × 55 ÿ ⊢ ے GAG E GCG A L TAT 90 GCA A 200 P 200 S 200 ည္တင္ Ş ۵ GGA. ည္ဟ GAG ည္က 99 ATC ည္သ H ⋖ ပ ⋖ CCA 39 SCC A œ ؎ S L S L AAC TGG N W AGC TAC S Y ဗ ဥ္ပ ရ ည္ဟ ٩ 2 A SS A GAT 366 ۵ 666 6 ATC 1 GCA S CTG L CTG V CCA PCA \_ ეე ~ AGT GGA 000 A ATG GTA ეე ე GTC > GAA AAG ш G Σ ¥ ACC 990 GAT GCC AAC ည္ဟ CGT ~ ~ ٩ A GTA 210 513 GCA A 7 H > 316 76G ည္သ 5.4 567 \_ GCA O GGA 116 666 A ATT 1 SAC Post TGG TGG **CGT** 5 > AGT S **66A** CTG 516 9 G CAG 25.7 CAT 25.2 1.2 1.3 1.3 × ပ ည္သ Æ ACA CA AGG 99 œ GAC D ည္သ 0 25 **193** SA TAT 9 ۵. ~ Σ >-CTG L GGA 99 <sub>င်</sub>မှ ATC , S ည > ۵ 616 ACA T CGC CTA CTA ე \_ 2 ATG M ₩ ¥ F F SAA E GCT CCT ⋖ ۵. ٩ CCT ACG GCT ည္ဟ L 77.2 z ⋖ ) V ႕ ပ္ဟ > GAC D 2 ည္လလ္လမ္လ 2000 ည္ဟ **GTT** > ~ > GCG A TCA 201 S <del>1</del> CAC CAC A CAC 25 A CCT A GTG ۲ <u>۲</u> ACT T 7G ¥ CTG E CTC ၁၁၅ GAA CTA 7.CT S ACT ¥ A TCC > CGA ည္ဟ GCT 5 ~ GCT ၁၅၁ ည 138 ~ ~ ပ ~ CTG 933 D 3TG CCA P CTG 366 GAC S R R TAT 9 ے > > ۵ 766 ¥ 676 ∨ ATC 1 CCG GTC 101 S CTG GTG V ຶ່ນ A AC GCT ۵ > CAT H GCT A A TGG 9 2 3 ٦ ٦ ည္တ 1 CC ¥ ×

# FIG. 2-2

Acceptor 1\_ Donor 2

ygatttggggygtggagtagagggaatgcgggaatggtccctatatctttgaaaagtgaatatgcttttcaggggttcctgaatcacttccctcttccagtgcttgatcccatcttct 

acagetetaatetaeeteacagttaggaetteaaggtttgggggggaaattecagggtteataggaagaagteaaactattggaatgggteetttteeaettaaaateaaatt<u>aataaa</u> 3197 tattattgaatgiggtttgtccctgctcgcttttctctggggtttgttttctttcgtggcctgcttgctggcttccttgctcgaggtgggttttgacaggggcagtaaattaggagt 3317 gaagtigictaagacccaccitgaacticactactactcagcagcigggacggcaggcacctgigctigacggccctgggaggagcctaiggcctiggaggcctgccagicc tatgittgigcigtatgcitagggaaaagaggcaccciccciccciticitcciacigciticciaacccigaigaicgacaigticciccacaaaicacicigicicca Acceptor 2 Acceptor 2"

## FIG. 3

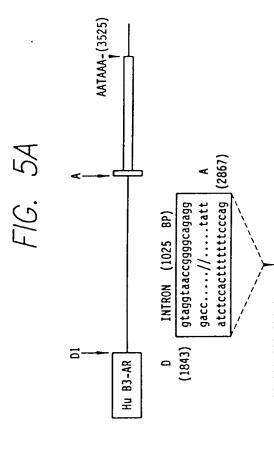
## AMINO-ACID SEQUENCE OF THE HUMAN B3-ADRENERGIC RECEPTOR GENE

MAPWPHENSS LAPWPDLPTL APNTANTSGL PGVPWEAALA GALLALAVLA TVGGNLLVIV AIAWTPRLQT MTNVFVTSLA AADLVMGLLV VPPAATLALT GHWPLGATGC ELWTSVDVLC VTASIETLCA LAVDRYLAVT NPLRYGALVT KRCARTAVVL VWVVSAAVSF APIMSQWWRV GADAEAQRCH SNPRCCAFAS NMPYVLLSSS VSFYLPLLVM LFVYARVFVV ATRQLRLLRG ELGRFPPEES PPAPSRSLAP APVGTCAPPE GVPACGRRPA RLLPLREHRA LCTLGLIMGT FTLCWLPFFL ANVLRALGGP SLVPGPAFLA LNWLGYANSA FNPLIYCRSP DFRSAFRRLL CRCGRRLPPE PCAAARPALF PSGVPAARSS PAQPRLCQRL **DGASWGVS** 

## FIG. 4

### AMINO-ACID SEQUENCE OF THE MOUSE B3-ADRENERGIC RECEPTOR GENE

MAPWPHRNGS LALWSDAPTL DPSAANTSGL PGVPWAAALA GALLALATVG GNLLVIIAIA RTPRLQTITN VFVTSLAAAD LVVGLLVMPP GATLALTGHW PLGETGCELW TSVDVLCVTA SIETLCALAV DRYLAVTNPL RYGTLVTKRR ARAAVVLVWI VSAAVSFAPI MSQWWRVGAD AEAQECHSNP RCCSFASNMP YALLSSSVSF YLPLLVMLFV YARVFVVAKR QRHLLRRELG RFSPEESPPS PSRSPSPATG GTPAAPDGVP PCGRRPARLL PLREHRALRT LGLIMGIFSL CWLPFFLANV LRALAGPSLV PSGVFIALNW LGYANSAFNP VIYCRSPDFR DAFRRLLCSY GGRGPEEPRA VTFPASPVEA RQSPPLNRFD GYEGARPFPT



... CCC AGG CTT TGC CAA CGG CTC GAC GG'G GCT TCT TGG GGA GTT TCT taggcctgaaggacaagaag...

